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HEARING

ON

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2019

AND

OVERSIGHT OF PREVIOUSLY AUTHORIZED PROGRAMS

BEFORE THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES
ONE HUNDRED FIFTEENTH CONGRESS

SECOND SESSION

SUBCOMMITTEE ON READINESS HEARING

ON

ARMY AND MARINE CORPS DEPOT POLICY ISSUES AND INFRASTRUCTURE CONCERNS

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ARMY AND MARINE CORPS DEPOT POLICY ISSUES AND INFRASTRUCTURE CONCERNS

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SUBCOMMITTEE ON READINESS,
Washington, DC, Wednesday, Thursday, June 28, 2018.

The subcommittee met, pursuant to call, at 8:30 a.m., in Room 2212, Rayburn House Office Building, Hon. Joe Wilson (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. JOE WILSON, A REPRESENTATIVE FROM SOUTH CAROLINA, CHAIRMAN, SUBCOMMITTEE ON READINESS

Mr. WILSON. Good morning. I call the House Armed Services Subcommittee on Readiness to order.

I want to welcome you to this morning's hearing, and would like to thank our witnesses for being here today to discuss the defense organic industrial base, and the significant role it has in maintaining and restoring readiness back to our armed services.

This hearing will specifically focus on the current state of the United States Army and the United States Marine Corps depot policy issues and infrastructure concerns. Our depots, arsenals, and ammunition production facilities are critical to this country's ability to project power and to properly train and equip our warfighters. The sustainment industrial base provides the backbone for the military to respond to a variety of contingencies, surge capacity, and provide unique solutions to requirements. Our readiness recovery is fragile, and to me, it is important to understand exactly what is in jeopardy.

During this hearing, I would like you to help us answer this basic question: In terms of risk, what does it mean to our national security, particularly our sustainment industrial base, to have failing depot infrastructure, lagging technology to properly repair and refurbish our equipment, combat vehicles waiting for depot maintenance, and a workforce that it often takes in excess of 180 days to recruit and hire?

The depots saw diminished workloads when the major combat operations ended in Iraq and Afghanistan. This decreased workload, coupled with unpredictable budgets and continuing resolutions, forced the services to divest a portion of the technically skilled workforce and limit reinvestment into depot facilities.

We know these variables have significant effects on the people, depot rates, and long-term organic industrial base viability. We are particularly interested in your proposed solutions relating—related to the carryover infrastructures, strategic planning, and civilian

hiring. We want to hear what the issues are from your perspective and how they are impacting on your mission.

It is our responsibility as members of the subcommittee to understand the readiness challenges of our armed services and how the resources and authorities provided impact capabilities this Nation needs.

Before I introduce the witnesses, I turn to the distinguished ranking member, Madeleine Bordallo, the very appreciated gentlelady from Guam, for her opening comments that she would like to make.

[The prepared statement of Mr. Wilson can be found in the Appendix on page 23.]

STATEMENT OF HON. MADELEINE Z. BORDALLO, A DELEGATE FROM GUAM, RANKING MEMBER, SUBCOMMITTEE ON READINESS

Ms. BORDALLO. Thank you very much, Mr. Chairman. And thank you to our witnesses for being here.

I think that we all agree that when the American public thinks of the terms "national defense," they envision our proud service members stationed around the world and the equipment, the ships, the tanks, and aircraft, that we supply so they can carry out their missions. But what is not often thought of are the capabilities needed to maintain these assets, especially the depots and shipyards of the organic industrial base that play a critical role in the readiness of our military forces.

Without properly maintained ships, vehicles, aircraft, and weapon systems, our forces cannot perform necessary training required to build readiness or meet the operational requirements that are placed upon them.

I am concerned that in a year where readiness has been cited as the Department's [Department of Defense's] top priority, the Department's budget request falls well short of meeting the total depot maintenance requirement for the Army and the Marine Corps. So when questioned about why these accounts were not funded to 100 percent of the requirement, the Department stated that the accounts were funded to the maximum executable rate. Thus far, no analysis has been shared with the committee on how the maximum executable rate was calculated, or what the limiting factors are to increasing execution rates.

I have long stated that just as important as it is to provide our service members with new, modernized equipment, we must fully maintain the assets that we already have. So I hope that our witnesses can share their perspectives on this particular issue today.

Your workforce is the backbone of your depot operations. This diverse assembly of people possess invaluable skills and expertise that must be cultivated, taking years of schooling and experience to acquire. Keeping a workforce of such caliber requires constant effort to hire, train, and retain. Past NDAA [National Defense Authorization Act] provisions have granted additional authorities allowing depots to expedite hiring, so I look forward to hearing of these provisions, if they are sufficient or whether additional changes are necessary.

Without our depots, our ability to ensure the safety of our Nation and pursue our national interests are severely impacted. So, gentlemen, your depots must accomplish their missions.

If we are going to rebuild readiness, we need to ensure that the depot maintenance accounts are fully funded to meet the requirement. If there are policies, authorities, workforce, infrastructure, or other challenges that are impediments to increasing the execution rates of the depots, this subcommittee needs to hear about them.

So I look forward to hearing your testimony on the challenges that our depots are experiencing in personnel, operations, and infrastructure management, and how this subcommittee can help you to address them.

I thank you. And with that, Mr. Chairman, I yield back.

[The prepared statement of Ms. Bordallo can be found in the Appendix on page 24.]

Mr. WILSON. Thank you, Ranking Member Madeleine Bordallo.

I am grateful to recognize our witnesses today and I want to thank them for their service to our Nation. We have Lieutenant General Aundre Piggee, the Deputy Chief of Staff, G–4, United States Army; and Brigadier General Joseph F. Shrader, the Commanding General, Marine Corps Logistics Command.

I would like to welcome Lieutenant General Piggee back to the Readiness Subcommittee and thank you for your continued service to the Army and our Nation.

I would also like to congratulate Brigadier General Shrader for his recent assumption of command at Albany, Georgia, of the Marine Corps Logistics Command and his first opportunity to testify before the subcommittee.

Before we begin, I would like to remind the witnesses your written statement will be submitted for the record and ask you summarize your comments to 5 minutes or less. And we will immediately begin with General Piggee.

STATEMENT OF LTG AUNDRE F. PIGGEE, USA, DEPUTY CHIEF OF STAFF, G–4, U.S. ARMY

General PIGGEE. Good morning. And, Chairman Wilson, Ranking Member Bordallo and distinguished members of the subcommittee, thank you for this opportunity to testify on our organic industrial base and our ongoing initiatives in support of its revitalization. On behalf of Secretary Esper and General Milley, I would like to express our gratitude for your continued strong support.

We face a security environment more complex and volatile than any we have experienced in recent history. To maintain effectiveness we must continue to focus on readiness, modernization, and reform. A key component of readiness is the Army's OIB [Organic Industrial Base]. This $14 billion enterprise consists of 23 ammunition plants, depots, and manufacturing arsenals that generate readiness and operational capability throughout Army formations. When the force needs equipment or parts manufactured, repaired, upgraded, the OIB delivers.

Although the OIB reliably generates readiness, it has largely been reactive to emerging threats. The reactive model does not allow us to modernize efficiently. In order to improve, we are embracing opportunities for change. We are implementing new tools

and processes for better forecasting workload, ensuring our work is aligned with our highest readiness priorities through our sustainment readiness model. We are collaborating with industry to share our best practices and to integrate top-tier technology, and we are developing a long-term plan for infrastructure and equipment modernization.

We won't achieve any of our goals without the highly skilled workforce comprised of dedicated tradesmen with critical skills, including mechanics, welders, and engineers. Fifty percent of our workforce is over the age of 50. We are developing a succession plan to make sure we retain critical skill sets as these skilled artisans retire. On average it takes about 10 years to train an apprentice to be a journeyman. The math makes it clear we need the flexibility to quickly hire and retain the right talent.

We have used the recently granted direct and expedited hiring authority to hire almost 500 new employees. The increased efficiency that we have gained is essential in our workforce succession plan. Among the things I will ask for today is those hiring authorities to be made permanent.

We also are focusing on modernizing our facilities, many of which are overdue for an upgrade. We plan to increase our infrastructure investments, strategically allocating those resources available to modernize the most antiquated, unreliable, and inefficient machinery and buildings.

Along with short-term investments, we are developing a plan to access the scope and focus of the long-term modernization efforts. Improvements like raising the minor MILCON [military construction] threshold and allowing us to use operation and maintenance funding to convert our facilities will help us reach our goals faster. We appreciate any flexibility you can provide to help us upgrade in the future.

The OIB has been effective at generating readiness for today's needs. Now, we ensure that it must be adept for tomorrow's requirements. We must hire and retain a talented workforce, modernize our facilities, and incorporate emerging technologies and, above all, have the flexibility to revitalize the industrial base as efficiently as possible.

I thank each of you for allowing me to testify today. Your support will enable us to continue to sustain and equip our best fighting force in the world. Thank you.

[The prepared statement of General Piggee can be found in the Appendix on page 26.]

Mr. WILSON. And thank you very much, General Piggee. And it was encouraging to hear addressing the hiring issue. Thank you very much.

General Shrader.

STATEMENT OF BGEN JOSEPH F. SHRADER, USMC, COMMANDING GENERAL, MARINE CORPS LOGISTICS COMMAND, U.S. MARINE CORPS

General SHRADER. Good morning. Chairman Wilson, Ranking Member Bordallo, and distinguished members of the House Armed Services Committee on Readiness, thank you for the opportunity to testify on this important topic.

The Marine Corps is advancing toward becoming a 2025 and beyond capable warfighting force. Technologically advanced vehicles, weapons, and C–2 [command and control] systems are being fielded. The information environment is now a warfighting domain with its own unique equipping and sustainment challenges. And our adversaries around the globe continue their efforts to close capability gaps every day.

The Marine Corps must have equally advanced organic depot capabilities to meet the potential demands of this future warfighting environment. To meet these demands, we are focused on advancements in the following areas: First, digital manufacturing. We are investing in innovative and advanced manufacturing capabilities, such as 3D [three-dimensional] printing and laser scanning technologies, in an effort to augment the repair part supply chain, improve response time, and drive down costs.

The second area we are pursuing is conditions-based maintenance processes and practices. The goal of our conditions-based maintenance effort is to optimize our equipment and inspect and repair as needed, and annual depot maintenance cycle processes by improving our ability to predict depot-level repairs based on data-driven, real-time diagnostics vice using a standards, time-based scheduled maintenance process.

The third area is equipment long-term storage and prepositioning. Readiness of the Marine Corps strategic war reserves and maritime prepositioning programs rely heavily on our organic depot storage and maintenance capability. Along with the advanced manufacturing initiatives that I spoke of, we are pursuing technologies to fully automate our inventory control, storage, and supply chain processes from the strategic level down to the individual Marine at the tactical edge on the battlefield.

The fourth area is partnering with industry and other service depots. In my commander's guidance, which I issued last week when I assumed command, I direct that we must mind other service depots in our private sector industrial base partner capabilities which are critical to our readiness and our ability to provide supplies and surge support. We rely heavily on their capability and capacity, and will seek every opportunity to ensure our organic capabilities are complementary and aligned.

Last but certainly not least is our workforce, specifically recruiting, hiring, and sustaining a highly capable mission-ready workforce. I would like to take this opportunity to thank the Congress for the direct hiring authorities you provided us in the recent NDAA. Through these special authorities, we are able to recruit and hire on a timeline which is comparable to industry, giving us the ability to more efficiently fill our most critical positions. We very much appreciate these authorities, and would like to encourage the Congress to make them permanent.

In closing, I want to thank you again for the opportunity to testify, and I look forward to your questions.

[The prepared statement of General Shrader can be found in the Appendix on page 35.]

Mr. WILSON. Thank you very much, General.

And your reference to digital manufacturing—I thought that the barcode was revolutionary. You are taking it to another step.

[Laughter.]

My goodness, what a challenge, but what is being accepted, and what opportunity you have.

As a reminder to all the members, including me, we will adhere to the 5-minute rule for questions on the witnesses, which is monitored ably by our professional staff member, Andrew Warren.

And we will begin. For each of you, aside from the meeting—aside from meeting the 6 percent statutory requirement for capital investments for depots, does the Army and the Marine Corps have an estimated backlog of the total facility and utility maintenance, and repair backlog for all of the depots? If so, how much is it, and what is the plan to resource the requirement?

And General Piggee, please.

General PIGGEE. Thank you, sir, and thank you for that question.

Sir, we have aging, failed, and—failed, and failing facilities. We have invested more than close to a billion dollars over the past 10 years to modernize our facilities, as well as our equipment. We have a plan for the near term to make almost $400 million investment in the future, as we go forward.

However, we are in the process of a more holistic, long-term view to ensure that we have the appropriate facilities, modernization of our machinery and equipment. We—that long-term view, we look out toward 2030. That assessment is ongoing. We expect to conclude that assessment sometime after the first of this calendar year.

As you know, some of our facilities are World War II vintage. And at those locations—Holston and Radford come to mind—we have a combination of those World War II facilities, which are still in operation and being productive, and we have some of the state-of-the-art, new facilities that we have recently installed and brought online.

Our goal is to eliminate that old, failed, or failing infrastructure as we modernize across all of our 23 depots throughout the OIB. We think we have a sufficient plan in the near term, and we are consistent—we are conducting an overall holistic assessment to see where we think we would need for, as we go forward, to about 2030, sir. Thank you.

Mr. WILSON. Thank you very much.

And General Shrader.

General SHRADER. Sir, good morning, and thank you for the question.

So facilities, in terms of a backlog; so the Marine Corps has, not necessarily within my portfolio, the Marine Corps looks at its facilities under the Marine Corps Installations Command and it's a holistic look, as I understand, across the Marine Corps.

From the depot perspective, I will tell you that one of the things that we—I believe we need to get at, from just what I have seen over the last week and a half or so, is our facilities in terms of storage, being able to get our equipment that is both in Albany and out in California out of the elements.

I think that there is a business case, I believe there is, intuitively, there is a business case to be made for the money that we put into maintaining the equipment because of the effects of the elements. If we had the storage facilities to get them out of that,

we could then take that money and maybe repurpose it into some other uses concerning maintenance.

Equipment is along the same lines. The backlog, I asked that question last week in one of my turnover briefs. And the answers that I am getting right now, sir, is there is not a backlog, in terms of we are able to execute what is planned for the fiscal year. Is there equipment out there that, if we were able to have more time and get it in? I believe there is some equipment out there that is in condition codes that would require us to get it into depot-level maintenance.

This is one of the questions that I am going to get after in the near future here, sir, and if I could maybe take that one for the record, in terms of specifics, in terms of backlog. Sir, thank you.

[The information referred to can be found in the Appendix on page 43.]

Mr. WILSON. And—and thank you for your commitment to do that.

And for each of you, we recognize the uncertain fiscal environments are one of your significant challenges, when it comes to executing depot maintenance. Can you elaborate on the challenge, and how continuing resolutions have affected the depot production for the Army or Marine Corps?

General PIGGEE. Yes, sir, I would like to comment on that perspective.

Sir, late receipt of funds impact our ability to plan and program. It impacts our second- and third-tier contractors. Sometimes they are sole-source, small companies; mom-and-pop with a small workforce. And what they look for with us is predictability in funding and consistently, so they have the funds and appropriate personnel. These are skilled personnel that they need to maintain and retain.

Workload continues to be our prime mission. We execute our workload based on sustainable readiness model. We develop our workload based on next to deploy, those units that are deploying. Those are going to the national training centers, our combat training centers throughout the Army, and those major exercises that we execute around the world.

It is very challenging, if we receive funds late, to execute those missions and to perform tasks within the given year. And my time is almost up, but I would like to talk about that a little bit more, but that is how we generally organize our workload on an annual basis.

Mr. WILSON. And thank you.

General Shrader.

General SHRADER. Sir, I would echo everything that the lieutenant general said. The CRs [continuing resolutions], in the very beginning—that is one of the assumptions that you use in going into planning a maintenance cycle for the year. And if that key assumption is off—how many CRs can we expect, and when are we expecting the budget to be able to come to us to execute—if that is off, then it has a ripple effect throughout the year.

And when you have multiple CRs like that, sir, like we have seen in the past, it just exemplary—or it just compounds that ripple effect. And so you find yourself at the end of the year, 6 months, try-

ing to execute 12 months' worth of funding and 12 months' worth of planned work. So, yes, sir.

Mr. WILSON. Thank you very much.

We will now proceed to Congresswoman—Ranking Member Madeleine Bordallo of the beautiful territory of Guam.

Ms. BORDALLO. Thank you, Mr. Chairman. You always make my day.

This question is for both of you. General Piggee, can you discuss the benefits permanent civilian personnel provide as part of your workforce at your depots and shipyards, and suggested strategies for continuing to incentivize and retain this part of your workforce?

General PIGGEE. Yes, ma'am, and thank you.

Our permanent employees are absolutely critical to success. As I talked about in my opening statement, it takes upwards of 10 years sometimes to properly train our artisans from a journeyman—from an apprentice to a journeyman. We are able to manage our workload and incentivize those permanent party—permanent employees by assisting with hiring temp [temporary] and term employees, and in some cases, contract capability.

We utilize the entire workforce, both permanent, temp, and term, to manage the workload as it increases throughout the course of the year, based on specific requirements that we think are not long term, and the ability to have, in addition to our permanent employees, our temp and term employees. Those term employees also have an opportunity as our aging workforce retire, those are where we select that skilled workforce that are already trained to replace those artisans that we have in place in a permanent capacity.

Ms. BORDALLO. Thank you.

General Shrader.

General SHRADER. Yes, ma'am. Again echoing what the lieutenant general said, I think what I would say is two things. One is, we believe if you take care of the people, the people take care of the mission, and the command, under my predecessor, he issued a Workforce 21 Plan that has six overarching goals in it to try to grow that workforce, right size, right skill sets for the future.

But we look at that workforce, ma'am, as it is the backbone of our depot maintenance and it is the DNA [deoxyribonucleic acid] of the organization. So we really have to mind that.

Some recommendation, ma'am, that is kind of outside of our four walls but acts—absolutely impacts us is STEM [science, technology, engineering, and mathematics] programs within our education departments. I think that we ought to really take a look at trying to foster that. In my previous job at Quantico, we worked with the local high school there to foster STEM programs and work with those students in science, technology, engineering, and math. And those are feeders, so into our intern programs and all that, yes, ma'am.

Ms. BORDALLO. Thank you. Thank you, General.

My second question is for the both of you two. How does the Army and Marine Corps assess the maximum executable level of depot workload when developing the budget request? And what are the primary factors that limit the ability to increase the maximum executable, am I saying that right, executable level?

And with you, General, please?

General PIGGEE. Yes, ma'am, thank you. Performance to execution; we determine our workload based on next-to-deploy units, the training that is going to be conducted, and facilities and workforce available. To date, we have sufficient capacity and skilled artisans to perform the work that we have been asked to perform.

Again, we have the flexibility with using our permanent employees, as well as our temp, term, and contract capability. So currently we do not have a backlog. However, what I will tell you when we receive work late in the year, in the year of execution it changes our priority. And when we have receipt of funds late it impacts our ability to execute that work in the course of that year.

I know we will talk a little bit about carryover later, but we think to a degree carryover is good for us. It allows us to have predictable work for our workforce, also for our second- and third-tier contractors where they can have predictability of managing their workforce and their supply chain.

Ms. BORDALLO. And General.

General SHRADER. Yes, ma'am. Sort of the same process; we take a holistic approach. We look at the operating forces and what they need first to be able to do their mission, fight tonight, if you will, and what they need to do that.

Then we look at the war reserves. And then we look at what is in prepositioning from a holistic standpoint. And then we build the equipment, master schedule, master work schedule; what is going to come through the depot maintenance program throughout the year.

Things that impact, and again it goes back to kind of the—I think the basic fundamental would be funding, enabling what we do. So when we receive that funding and being able to execute that and stay up with that schedule that we have set in place at the beginning of the year is critical. Yes, ma'am.

Ms. BORDALLO. Thank you very much.

Thank you Mr. Chairman, I yield back.

Mr. WILSON. And thank you Congresswoman Bordallo. We now proceed to Congressman Austin Scott of Georgia.

Mr. SCOTT. Thank you, Chairman.

Gentlemen, you both spoke to the improvements in your physical infrastructure. Could you speak briefly to improvements in information technology systems and what changes you expect there? And then also to the way artificial intelligence [AI], or machine learning, is going to have the ability to help make the maintenance cycles more predictable and precise?

General PIGGEE. Yes, sir, thank you. Sir, you will often hear our Secretary and Chief, General Milley, often speak of taking advantage of AI, taking advantage of robotics, taking advantage of technology today.

In fact, we have tasked General Perna in the Army Materiel Command to establish a center of excellence for additive manufacturing at—at Rock Island, Illinois, where they will develop techniques, processes, and procedures that they will be responsible to proliferate throughout the Army, where we can take advantage of this additive manufacturing and other machine learning with the intention of reducing workload, becoming more efficient and taking

advantage of today's technology that will allow us to be more efficient.

We are looking at 3D printing. We have 3D printing available in 16 of our depots today. We—when we—our supply chain is not able to provide the next—the necessary repair parts in a timely manner, we found that we can 3D print parts which reduces the amount of time we wait for our supply system. We have also found that we can 3D print special tools in some cases. Again, allowing us to be more effective and efficient in production of our supply chain.

We are also looking at the condition-based maintenance where we put sensors on our equipment, where we can sense failures before they fail, where we can replace widgets vice major end items at a much reduced cost. This will require our depots to take advantage of that techniques today that is available. They are in the commercial industry and we are taking advantage of those today in our depots.

General SHRADER. Sir, the only thing I would add to that is inventory control. Inventory control that—the vision that I would have for inventory control is if you can imagine walking into a warehouse and you have everything in that warehouse that is coded with RFID [radio-frequency identification] tags. And then you have a set of robotics, whether they—whether they fly or they are ground-mounted robotics. They go through and they are tied into a Wi-Fi network that is within this warehouse that can, as it moves, it can just scan.

And it feeds into a C2 system that has everything loaded into it that would be on our GCSS [Global Combat Support System] Marine Corps system. It's loaded into it and you know instantly what you have on the shelves, what condition it is in, what needs to be ordered, so on and so forth.

So it is from inventory to having control over that inventory, to being able to order what you need and then feeding into the supply chain. So it is just this constant system that I am talking about, that is an IT [information technology] system, that is from end to end knowing what you have, inventorying it and knowing what you have, and then being able to order it and replenish it. So that is—it is kind of a vision, sir.

Mr. SCOTT. With regard to one, I am glad that we use as many small businesses outside of the depots as we can for the CNC [computer numerical control] machining and other things. And I hope we will continue to do that.

My question gets to, as we use those small employers that are out there, what steps are being taken to help them with cybersecurity to make sure that our technology is not stolen from? We have to share that information with those small employers for them to be able to manufacture the parts for us. What steps is the DOD [Department of Defense] taking, with regard to cyber, to make sure that our intellectual property is not stolen from those small employers?

General PIGGEE. So, that is an issue for our entire government, and specifically our Army and our depots. In the past, our logistics systems have probably been the weakest with respect to cyber and defending against cyber. We are having dialogues with what our challenges are, sharing with them our best practices and—and les-

sons learned, and I would like to get a little bit additional information to provide you for the record——

Mr. SCOTT. That is fine.

General PIGGEE. Exactly what our techniques are with sharing with our smaller partners.

[The information referred to can be found in the Appendix on page 43.]

Mr. SCOTT. That is fine.

General SHRADER. Sir, I would just tell you, my previous job, that is what you are talking about, is an ATO process, authority to operate process. So any time we put a system, build a system, design a system software, put it online, it has to go through that process, and there are certain security checks to go into that so that we are assured, and our industry partners are insured, any kind of information we get from them and load it into that system, it is protected. So it is kind of a good faith effort that we have in place, working with a—with industry. But there is an ATO, authority to operate process that we go through that looks at that cybersecurity question.

Mr. SCOTT. Thank you, gentlemen.

General SHRADER. Sir.

Mr. WILSON. And thank you, Congressman Austin Scott.

We now proceed to Congressman Don McEachin of Virginia.

Mr. MCEACHIN. Thank you, Mr. Chairman, and this question is for both—both of you, please. I know that the Navy has developed a shipyard recapitalization plan to address some of the same kinds of challenges that the—that the Army and Marine Corps depots face. I understand that the Army is moving in a similar direction. If depots across the service face similar challenges in terms of age, configuration of these facilities, and if they share a similar mission, then I assume there must be some value in sharing information, and perhaps coordinating the services.

As all the services plan for the future of their respective depots, is there any effort to do department-wide planning, or to look for opportunities where a joint approach or joint efforts could be valuable? And if no such effort is in the works, is there a project in which either of you sees—is this a project in which either of you sees a potential value?

General PIGGEE. And thank you, sir. And this is a—not a competitive environment with us in the services. We work together. We have work groups where we share information. As you probably are aware of, we do work for the other services. We do M1A1 [Abrams] tanks for the Marines, we do MRAPs [mine resistant ambushed protected vehicles] for the Marines and the Navy, and we do HH–60s [Pave Hawk helicopters] at Corpus Christi for the Air Force. And in our work groups, we determine the best capability, where it might exist, with the most economical value for the services.

Are there opportunities for us to refine and do that better? I would say probably so, but I think we have a system in place now through our work groups and our various committees in working with the other services where we do specifically talk about our workload, and how we can balance that together from a joint force perspective.

General SHRADER. Sir, I will tell you this. As I get my arms around this job, one—it is acronym overload, and one of the acronyms that has been thrown at me is DMISA, and what that is is depot maintenance interservice agreement. So I ask, you know, what does that mean? And it essentially means, like, the Army has their 23 depots. The Marine Corps has two depots. There is Air Force and Navy depots that we, because we are the smaller, we really have to rely on them for their centers of excellence that do that equipment, as—the same with us. There is equipment that we do, as the general said, for them, like MRAPs for the Air Force, and so on.

But there is a—my understanding is, is there is a, I want to say, formal process through this DMISA, depot maintenance interservice agreement, where we look at that to make sure that it is complementary and aligned; that there is no duplicative efforts, and if they are duplicate, there is a reason why we are doing it. So yes, sir.

Mr. MCEACHIN. Thank you for that.

One of my concerns about our military installations is energy resiliency. Can either of you speak to the resiliency of your depots, specifically, relative to other kinds of installation? And would you mind speaking, in particular, to any potential role for clean energy, as we work towards greater resiliency?

General PIGGEE. Sir, as you know, we have a combination of older World War II-version depots and arsenals, and we have some more modern facilities, and in some cases, we have World War II and modern facilities combined together.

As we establish our new modernization plan, we are taking energy well into consideration, taking advantage of the latest technologies and capabilities that are out there. We have work to do. We work with our local partners in the communities that we reside to take advantage of their capabilities that exist. I will tell you that there is work to be done in that area, but we are taking into full consideration, as we modernize our industrial base, taking advantage of clean energy and green energy, and working with our partners to learn best practices.

Mr. MCEACHIN. Thank you.

General SHRADER. Sir, aboard Albany, we have recently completed, it is with Georgia Power, a solar-renewable plant that was—I mean, there is a huge—I don't know how many acres it covers, it's very large—set of solar panels out there that we have a direct line that feeds into the depot, so that when it's charging and producing power, we tap into that. So that is one, I think, a huge win at Albany.

The second thing is they are also putting in a geo-cooling and thermal system there aboard Albany that is also helping us better manage the grid, if you will, down there. And then the other thing is, you know, we were recently hit with a tornado that came through, and some of the things that I have read that occurred there, one of the benefits, or I guess, one of the wins out of that was they had a backup generator process there within the base, that when the tornado came through, it was very minimal time that they were out of power and unable to perform the mission in facilities that were there.

But in closing, they are really focusing on renewable energy, being able to, if something were to happen to the energy grid, the depots are still up and running. So yes, sir.

Mr. MCEACHIN. Thank you for that.

And Mr. Chairman, I yield back.

Mr. WILSON. And thank you very much, Congressman Don McEachin.

We now proceed to Congresswoman Vicky Hartzler of Missouri.

Mrs. HARTZLER. All right, thank you very much, Mr. Chairman, and thank you, gentlemen.

General Piggee, I was interested in your comments, because I am very interested and supportive of Lake City Ammunition Plant, which is just outside of Kansas City, very close to my district. It employs many people from my district, and your comments are certainly spot-on, this being a World War II facility.

When I first visited, I was, frankly, fairly shocked at all of the—the condition and the number of buildings there that are just—needed to be razed. They have been over time, but in total, the government-owned and contracted operated sites, of which Lake City is one of them—there is—of the four largest ones of those constructed during World War II that collectively encompass a total of 33,000 acres, with approximately 2,500 buildings, and, yeah. Many of them contain heavy industrial equipment requiring maintenance automation. And we have been maintaining there. The time I was there last year, I saw a big difference in the modernization and the improvements that are being made there to modernize.

But, you know, this has been a problem over time, with not enough funding. I was pleased in fiscal year 2017 that Congress provided Army with additional funds to address this aging infrastructure, and then fiscal year 2018, the Army finally requested a sufficient increase through the unfunded requirements list, which was approved by Congress. And this year, I was very pleased to see that the Army requests significant investments for fiscal year 2019 through the FYDP [Future Years Defense Program]. So it looks like, you know, we are getting after this. I was encouraged to hear about the plan that is going—being developed to look at this modernization, that will be released at the beginning the year.

I guess some of my questions are, since all of the ammunition plants are in bad shape, how does the Army prioritize funding for recapitalization and modernization among the various locations, since they all have needs?

General PIGGEE. Yes, ma'am. And thank you for that question. And I, too, have visited Lake City and it is a combination of World War II vintage still making munitions the old-fashioned way. And I was quite surprised to see that to an extent, although we have made some success and improvement at that location.

Ma'am, we prioritize our—again, highest priority equipment based on output that is desired to execute readiness—to improve readiness. We are—made sufficient, significant investment over the past 10 years. We have taken advantage of MILCON; the increase in authority for minor MILCON that Congress have provided us. We have taken advantage of the conversion of MILCON to O&M [operations and maintenance]. We are taking advantage of all the resources that we have available.

As you indicated, ma'am, we have committed an investment over the next FYDP to improve our equipment facilities and machinery in our depots. And we executed a more holistic assessment. We are looking out for the next decade, where we will prioritize our facilities. And then come in and ask for budget execution authority to significantly improve those facilities after that assessment.

Mrs. HARTZLER. Great. How has the Army conducted a cost analysis of building new facilities versus modernizing the current ones? I know that was a question I had the last time I visited. We had a good discussion on that. But how do you analyze that analysis?

General PIGGEE. Ma'am, that is part of our holistic assessment that we are executing currently. When we find facilities that we can repurpose, that we can execute in a quicker fashion, we will use the conversion authority that Congress has given us, to use O&M funds to do that. But that is part of our holistic assessment that we—that is ongoing at this time, ma'am.

Mrs. HARTZLER. And you said something during your ceremony—your ceremony— at your testimony that I tried to find in the written testimony and I couldn't find. But it caught my ear. You said something about you would like the increased authorities to be able to spend money without congressional authority? Did—is that what you were saying?

We worked on this in the NDAA. I had an amendment for the NNSA [National Nuclear Security Administration] and their infrastructure issues last year, where they wanted the ability to just go ahead and contract under, like, $25 million dollar, and to raise that threshold from—I can't remember. But did you say something like that? Are you needing Congress to increase your authority where you can move around funds without coming to us, or something?

General PIGGEE. No, ma'am. I think my intention was to thank you for the recent authority that you gave us, with respect to minor MILCON, and the conversion authority from MILCON to O&M dollars. We think that is appropriate well within the resources that we need. Not additional to that, but we really appreciate the authority that you recently gave us.

Mrs. HARTZLER. Just want to make sure there wasn't something new that we could be doing to be helpful. Thank you very much. I yield back.

Mr. WILSON. And thank you very much, Congresswoman Vicky Hartzler. We now proceed to Congressman Salud Carbajal of California.

Mr. CARBAJAL. Thank you, Mr. Chair. And good morning to both of you.

My question this morning is on civilian workforce. And it is addressed to both of you. Last month, the Office of Personnel Management sent Congress a report to cut annuities, reduce, then eliminate the Federal Retiree Cost-of-Living Adjustments and eliminate the Federal Employee Retirement System annuity supplement for Federal Government civilians.

Are you both familiar with this proposal? And if so, how would these proposals affect your ability to recruit and retain a Federal civilian workforce?

General PIGGEE. Sir, I personally am not aware of that policy and refer you to our personnel team to—that could more adequately address that.

Obviously any incentives that we have, we would like to maintain. Our workforce are critical to success in our industrial facilities. And retention and retaining those employees and being able to recruit is extremely important to us. And incentives are important as well.

Mr. CARBAJAL. Thank you.

General SHRADER. Sir, I am not familiar with the proposed reductions or cuts, but incentives are important to us. So anytime that something like that happens, we would have to assess the impact on our ability to recruit and retain. Yes, sir.

Mr. CARBAJAL. Well, Mr. Chairman, I actually inquired about this issue at the last readiness hearing. And I was given similar answers, although your answers are little bit better.

We are discussing the future of this Federal civilian workforce. And I hope in the future that our witnesses here today understand this, and why the results of this report can severely impact the future of the Department. I will be submitting this question for the record, again. And I strongly urge the witnesses to respond to the committee as soon as possible.

I had a much longer list of language here to reiterate what is really in the report. But I won't belabor the issue. But I do think it is extremely critical and important, especially when the civilian workforce comprise a significant part of our readiness, that we have good answers for this and a better understanding.

Thank you very much. Mr. Chairman, I yield back.

[The information referred to can be found in the Appendix on page 43.]

Mr. WILSON. And thank you, Congressman Salud Carbajal. We now proceed to Chairman Mike Rogers of Alabama.

Mr. ROGERS. Thank you, Mr. Chairman, and thank you all for your service. Thank you for being here, we appreciate you.

You know, I am a big fan of the depot system. We can't do our jobs without a strong depot system. But they have been struggling, and we have been hearing it for years, with problems with carryover and the limitations that they have.

It is my view that the services are unnecessarily restricting equipment overhaul, planning, and ordering to gain the carryover calculations. Meanwhile, the vital work being done at these depots must be accompanied—accomplished faster than ever in today's threat-filled environment to support our readiness. And the bean counting should not stand in the way of this mission.

To each of the services, General Piggee and General Shrader, you may be aware that last year's House report accompanying the NDAA called the Office of the Secretary of Defense to assist, if necessary modify the carryover calculations. The response in April of this year provided some insight into each service that fell short of providing a solution amenable to all.

Could you discuss the challenges unique to Army and Marine Corps carryover management programs, and any recommendations for improvement? General, we will start with you.

General PIGGEE. Thank you, sir, and great to see you again, Congressman Rogers.

Sir, we have worked carryover diligently and very hard. It is a priority in our Army Materiel Command, as you know, General Perna leads that effort. And he personally reviews the carryover. And we have reduced carryover by more than 39 percent in the past 3 years. We continue to refine, to ensure that we are being effective and efficient with our workload.

But receiving funds late in the year, continuing resolutions, all have an impact on our ability to execute requirements in the year. World events change. As priorities change for the Army, we get different priorities. We get additional work during the year of execution. It makes it virtually impossible to execute that requirement that we developed at the beginning of the year when we don't either have funds or changed priorities in the course of the year. That causes carryover.

We think a bit of carryover is good. We are working to stay within the allowable limit. However, we would ask that we are not penalized for those items that are beyond our span of control. Late receipt of funds, as an example, will definitely have and has had an impact on our ability to execute within that given year.

World requirements that change, and we get a change in priorities and get additional work in the year of execution, prevents us from executing all of that work that was originally programmed. So we would ask just not to be penalized for work that comes in, and into our depots, and also that is beyond our span of control.

We are accountable. We understand the importance of carryover. And we are willing to work with you, with OSD, and with others to develop a calculation. But the current calculation, we agree, did not meet our needs.

Mr. ROGERS. Well, General Perna did give me some language that we incorporated into this year's NDAA that came out of the HASC [House Armed Services Committee] and out of the House.

General Shrader is—have you seen that language that we put in this year's NDAA?

General SHRADER. Sir, not yet. I just took command last week. So, and this is——

Mr. ROGERS. Yes. If you will take a look, I am interested——

General SHRADER. I will, sir. Yes, sir.

Mr. ROGERS. I know it is going to fix the Army's problem because we got it from Army Materiel Command. But I am not sure if the other services are going to find it amenable to their concerns.

I asked your counterparts in the Air Force in a hearing a couple weeks ago to look at it. So, I would urge you to do the same, if you would, and let me know back.

General SHRADER. I will, sir.

[The information referred to can be found in the Appendix on page 44.]

Mr. ROGERS. Okay, thank you.

With that, I yield back, Mr. Chairman.

Mr. WILSON. Thank you, very much, Chairman Mike Rogers.

And at this time, in lieu of a second round, if anyone has individual questions, and I do, with General Shrader. You cited the January 2017 tornado, which inflicted such damage at the Marine Corps

Logistics Base in Albany and the surrounding community. How is your recovery coming along? What, specifically, can we do to facilitate continued tornado recovery? Anything we can do to back up Congressman Austin Scott?

General SHRADER. Sir, I appreciate the question. And I think things are going well, in terms of the plan to recover from the tornado. Specifically, there were some 47,000 principal end items of equipment that were affected. And of the 47,000 we have been able to get through 75 percent or, roughly, 35,500 pieces of that and it is ready for issue back. So, it is been through.

So, we have got about 25 percent more that either has to be—go through the limited technical inspection process, which may feed into the depot maintenance process. So, that is—that system is on track and going. Facilities, 64 buildings down there were damaged. Of the 64 that were damaged, 20 repairs have been complete. And there is ongoing 44 buildings and facilities that are still in various stages of completion.

Last week I was able to talk to the lieutenant—the Navy lieutenant commander, Seabee, that is overseeing the whole project. And I think the biggest things that he was getting after is there are eight of our—eight of storage facilities, warehouses, that they are reroofing underway. And they are working on getting three of them still under contract, to get after those. So, it is all a process and I think it's going well, sir.

And in terms of—the last thing I will tell you is, we do have money that was put in the fiscal year 2018 for a 200,000-square-foot facility that we are going to break ground on here pretty soon for warehousing. So it is underway, sir.

Mr. WILSON. Well this is reassuring, and—and we all know you can count on the Seabees too. So this is terrific. Are there any other questions?

If not, I would like just to thank all the witnesses for being here today.

I also would want to wish everyone a very happy Fourth of July. And if anybody's available, the Gilbert, South Carolina, Peach Festival is available. Don, you can come on out—come on down, but we would invite you to come by, but happy Fourth of July to everyone.

This hearing is adjourned.

[Whereupon, at 9:20 a.m., the subcommittee was adjourned.]

A P P E N D I X

JUNE 28, 2018

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

JUNE 28, 2018

Statement of the Honorable Joe Wilson
Chairman, Readiness Subcommittee

"United States Army and United States Marine Corps Depot Policy Issues and Infrastructure Concerns"

June 28, 2018

Good morning. I call to order the House Armed Services Subcommittee on Readiness. I want to welcome you to this morning's hearing, and I would like to thank our witnesses for being here today to discuss the defense organic industrial base and the significant role it has in maintaining and restoring readiness back to our armed services. This hearing will specifically focus on the current state of "United States Army and United States Marine Corps Depot Policy Issues and Infrastructure Concerns".

Our depots, arsenals, and ammunition production facilities are critical to this country's ability to project power and to properly train and equip our warfighters. The sustainment industrial base provides the backbone for the military to respond to a variety of contingencies, surge capacity, and provide unique solutions to requirements.

Our readiness recovery is fragile and it is important to understand exactly what is in jeopardy. During this hearing, I would like you to help us answer this basic question:

In terms of risk, what does it mean to our national security, particularly our sustainment industrial base to have failing depot infrastructure, lagging technology to properly repair and refurbish our equipment, combat vehicles waiting for depot maintenance, and a workforce that it often takes in excess of 180 days to recruit and hire?

The depots saw diminished workloads when major combat operations ended in Iraq and Afghanistan. This decreased workload coupled with unpredictable budgets and continuing resolutions forced the services to divest a portion of the technically skilled workforce, and limit re-investment into depot facilities. We know these variables have significant effects on people, depot rates, and long-term organic industrial base viability. We are particularly interested in your proposed solutions related to carryover, infrastructure strategic planning, and civilian hiring. We want to hear what the issues are from your perspective and how they are impacting your mission.

It is our responsibility as members of this subcommittee to understand the readiness challenges of our armed services and how the resources and authorities provided impact capabilities this nation needs.

Before I introduce the witnesses, I turn to Ranking Member Bordallo, the distinguished gentlelady from Guam, for opening comments she would like to make.

Congresswoman Madeleine Z. Bordallo
Readiness Subcommittee
Hearing on
"Army and Marine Corps Depot Policy Issues and Infrastructure"
June 28, 2018

Thank you Mr. Chairman and thank you to our witnesses for being here. I think that we all will agree, that when the American public thinks of the terms "national defense," they envision our proud servicemembers stationed around the world and the equipment—the ships, tanks, and aircraft—that we supply so they can carry out their missions. What is not often thought of are the capabilities needed to maintain these assets, especially the depots and shipyards of the organic industrial base that play a critical role in the readiness of our military forces.

Without properly maintained ships, vehicles, aircraft, and weapons systems, our forces cannot perform necessary training required to build readiness or meet the operational requirements that are placed upon them. I am concerned that in a year where readiness has been cited as the Department's top priority, the Department's budget request falls well short of meeting the total depot maintenance requirement for the Army and Marine Corps. When questioned about why these accounts were not funded to 100% of the requirement, the Department stated that the accounts were funded to the maximum executable rate. Thus far, no analysis has been shared with the committee on how the maximum executable rate was calculated or what the limiting factors are to increasing execution rates. I have long stated that just as important as it is to provide our servicemembers with new, modernized equipment, we must fully maintain the assets that we already have. I hope that our witnesses can share their perspectives on this issue today.

Your workforce is the backbone of your depot operations. This diverse assembly of people possess invaluable skills and expertise that must be cultivated, taking years of schooling and experience to acquire. Keeping a workforce of such caliber requires constant effort to hire, train, and retain. Past NDAA provisions have granted additional authorities allowing depots to expedite hiring and I look forward to hearing if these provisions are sufficient or whether additional changes are necessary.

Without our depots, our ability to insure the safety of our nation and pursue our national interests are severely impacted. Gentlemen, your depots must accomplish their missions.

If we are going to rebuild readiness, we need to ensure that the depot maintenance accounts are fully funded to meet the requirement. If there are policies, authorities, workforce, infrastructure, or other challenges that are impediments to increasing the execution rates of the depots, this subcommittee needs to hear about them.

I look forward to hearing your testimony on the challenges our depots are experiencing in personnel, operations, and infrastructure management, and how this subcommittee can help you address them.

Thank you and with that Mr. Chairman, I yield back.

RECORD VERSION

STATEMENT BY

LTG AUNDRE F. PIGGEE
DEPUTY CHIEF OF STAFF, G-4
UNITED STATES ARMY

BEFORE THE

SUBCOMMITTEE ON READINESS
COMMITTEE ON ARMED SERVICES
UNITED STATES HOUSE OF REPRESENTATIVES

SECOND SESSION, 115TH CONGRESS

ARMY AND MARINE CORPS DEPOT POLICY ISSUES AND INFRASTRUCTURE CONCERNS

JUNE 28, 2018

NOT FOR PUBLICATION UNTIL RELEASED BY THE COMMITTEE ON ARMED SERVICES

Introduction

Chairman Wilson, Ranking Member Bordallo, and distinguished members of the Subcommittee, thank you for the opportunity to testify on the preparedness of the Army's Organic Industrial Base (OIB), its critical role in providing and sustaining readiness for the Warfighter, and our ongoing initiatives in support of its revitalization.

On behalf of Secretary Esper and General Milley, I would like to express our gratitude for your strong support. As the Secretary outlined in his recent testimony before the House Armed Services Committee, we face a strategic security environment more complex and volatile than any we have experienced in recent memory. To maintain our effectiveness, we must continue to focus on Readiness, Modernization, and Reform.

A key component of Readiness is the Army's OIB. This $14 billion enterprise consists of 23 ammunition plants, depots, and manufacturing arsenals that manufacture and reset the Army's best equipment, generating readiness and operational capability throughout Army formations. When the force needs equipment or parts manufactured, repaired, upgraded, or modernized, the OIB's industrial artisans deliver.

The OIB builds and maintains readiness by executing two key functions. The first is depot maintenance, which is the overhaul and rebuild of major systems such as the Abrams, Bradley, and Stryker, as well as communications equipment, weapons, and other materiel. The second function is the execution of the Army's role as the DoD Executive Agent for Conventional Ammunition. This includes manufacturing critical conventional munitions including propellants, energetics, and small arms ammunition. Our ammo plants maintain preferred munitions and load, assemble, pack, store, distribute, and demilitarize munitions.

The OIB has demonstrated its value time and time again during the past 17 years of conflict. In order to remain highly capable and responsive, the OIB must be optimized to maintain unit readiness across the force and have the ability to surge in support of contingencies. The OIB successfully surged in order to provide

warfighting equipment required for contingency operations in Afghanistan and Iraq. Although it remains a key readiness enabler for the Army, the OIB is in a period of transition. As we redeployed forces and drew down the Army over the past decade, inability to balance our workload with our capacity and workforce contributed to rate increases and inefficient operations.

OIB Workload and Readiness

The OIB has been sustaining continuous operations since 2003. During this time, the OIB produced over 21 billion rounds of ammunition and reset over 3.9 million pieces of equipment valued at approximately $32 billion. Notably, $5.7 billion of this work was in support of other Services. The OIB's efforts increased Equipment-On-Hand readiness rates of units across the Army and contributed to the execution of other key readiness initiatives, like the expansion and reconfiguration of Army Prepositioned Stocks (APS). Equipment that went through the OIB is now at a higher state of readiness in our APS sets, which significantly reduces the amount of time it takes to issue the equipment to deploying units. The OIB also worked to build and equip the Army's 15th Armor Brigade Combat Team (ABCT) at Fort Stewart, Georgia.

Although the OIB has reliably generated readiness, it has largely been reactive to emerging requirements; this reactive model does not allow us to preserve the organic capability required to maintain the core competencies and surge capacity we need to generate combat power. To become more proactive, we are embracing opportunities for change. We are implementing new tools and processes to help us better forecast workload and align it to the Sustainable Readiness Model. We are assessing how we manage our capabilities and capacity, and we are developing a long-term plan for infrastructure and equipment improvement in our facilities. We are constantly looking for synergies with industry through public-private partnerships, and will continue to streamline depot maintenance through automation and continuous process improvement initiatives.

Unique Capabilities in the OIB

The OIB possesses unique industrial competencies that are not easily replicated in the commercial sector. These capabilities provide for the Army's immediate needs, provide a base from which to expand in times of conflict and increased operational tempo, and rapidly produce or repair weapons systems or components that are essential for operational readiness. One example is Watervliet Arsenal in New York. Watervliet is the nation's only manufacturer of large caliber cannon barrels, breach blocks and breach rings. In 2014, we found a fleet-wide problem with corrosion in the gun tubes on one of our major weapons systems. Because Watervliet was postured to surge, we were able to correct the problem and return to acceptable readiness levels much faster than we would have relying on industry alone.

In addition to depot maintenance capabilities, we rely heavily on the organic and commercial segments of the ammunition industrial base. The Army has identified 103 critical capabilities for ammunition production and management; 25 of these reside solely in the OIB. For example, Holston Army Ammunition Plant in Tennessee is the only manufacturer of High Melting Explosive and Research Development Explosive in the United States; Holston also recently began production of IMX - Insensitive Munitions Explosive, the first in a family of "insensitive munitions," which are far more stable than conventional TNT. Additionally, McAlester Army Ammunition Plant in Oklahoma produces bombs for all the services and is the principal source of supply for both wartime and training requirements across the Department of Defense.

Personnel

The highly skilled artisans of our workforce are the backbone of our OIB. Altogether our government and contractor operated facilities employ about 28,000 people who are committed to producing weapons systems and equipment at the highest possible levels of readiness. This workforce is comprised of dedicated tradesmen with

critical skills, including skilled mechanics and machinists, electricians, welders and engineers.

Many of these experts have dedicated years of service in their facilities, and are now retirement eligible. On average it takes 10 years to train an apprentice into a journeyman, and there is fierce competition for that talent from industry employers. The OIB needs the flexibility to quickly hire and retain the right talent. We have been able to use the recently granted Direct and Expedited Hiring Authorities to hire almost 500 new employees – the increased efficiency we've gained is essential to our workforce succession plan.

In addition to making sure we have the right skill sets, we need the right mix of permanent, term, temporary, and contracted workforce. Having the right mix allows us to appropriately structure our workforce to our workload – a critical balance that we have to get right in order to keep the rates at our facilities competitive to attract more work.

Infrastructure, Modernization, and Cost Efficiencies

The aging infrastructure of our 23 facilities is overdue for an update; over 6 percent of these facilities, valued at $2.5 billion, are in substandard condition. The Army recognizes that modernization is especially critical now. We plan to make facility investments and upgrades to modernize antiquated, unreliable, and inefficient machinery and facilities. New technologies like automation and robotics, accompanied by upgrades to facilities and infrastructure, have enhanced productivity. As productivity and efficiency increase we are seeing corresponding decreases in labor, maintenance, and utility costs.

Despite our aging infrastructure, we have made great efforts to increase energy performance. Industrial operations require tremendous water resources and energy. The OIB has successfully used Energy Savings Performance Contracts and Utility Energy Service Contracts to solicit third party investment and save over $30 million annually.

In addition to our short term investments we are taking a long term, strategic approach to major infrastructure upgrades. We are developing a strategic plan to

assess the scope and focus of our modernization efforts. We generate our requirements by considering current and emerging mission priorities, our existing recapitalization strategy to address failed or failing facilities and those with sub-standard conditions, and requirements for additional space to support future work.

Process and Performance

Alongside upgrading our infrastructure and facilities, we are modernizing our processes and performance. To ensure readiness now and into the future, we are developing a schedule-driven, depot workloading strategy that is directly linked to the Army's Sustainable Readiness Model. This approach ensures our organic capabilities are focused on meeting our highest readiness priorities and our precious resources are optimized at the enterprise-level. This approach also yields a predictable and stable workload while providing a mechanism to continually evaluate and assess risk to the operating force.

The OIB recently transitioned to business systems that use standard, industry-recognized processes. The Logistics Modernization Program (LMP) is built on commercial off-the-shelf software for Enterprise Resource Planning (ERP) and shop floor integration. These tools give us complete visibility on manufacturing and service operations, a capability we now have for the first time. These applications also help us improve the accuracy of our Bills of Materials; engage in more efficient production scheduling; enable interaction with our supply chain of over 11,000 first, second and third tier vendors; and reduce delays for parts. These capabilities coupled with the Army's tactical-level ERP are increasing the speed at which materiel reaches the warfighter, and provides the Army with true "factory to foxhole" asset visibility and auditability.

The OIB is also executing a number of supply chain initiatives to improve its effectiveness, including improving demand forecasting accuracy and imposing tougher performance standards on suppliers. The aforementioned efforts improve our ability to purchase, manufacturer, and repair critical parts required to support warfighting equipment.

The Army is actively pursuing advanced manufacturing (AM), integrating a

number of cutting edge technologies including robotics, artificial intelligence, computer learning, and additive manufacturing to improve products or processes. We have installed AM capabilities at seven OIB sites. AM could revolutionize the way in which our arsenals and depots maintain, repair, and recapitalize equipment. With AM capabilities, we will be able to quickly replicate parts that are obsolete and difficult to obtain, translating to reduced down time and higher operational readiness rates. We are collaborating with other Services and sharing best practices and lessons learned with industry, participating in forums with the private sector and original equipment manufacturers. Eventually, our expectation is to deliver this capability to the point of need on the battlefield, getting equipment quickly back into action while eliminating wait time and transportation costs.

Synergy through Public-Private Partnerships

Public-private partnerships are an important element of our strategy for a modern, viable OIB. These partnerships allow private sector companies to access OIB manufacturing capabilities and permit the government to act as a supplier to commercial industry under certain circumstances. Last year, 263 partnerships across the OIB produced $412 million in additional revenue for the government and brought with them innovative ideas and best business practices.

There are many exciting examples of these projects. Anniston Army Depot continues to partner with General Dynamics to reset Strykers, and with Honeywell to recapitalize Army M1 tank engines at 25 percent of their original cost which saves the government $45 million annually. Tooele Army Depot in Utah has a joint venture with Safety Management Services (SMS), Inc. to operate an on-site commercial laboratory that tests and grades explosives. AM General is partnering with Rock Island Arsenal's Joint Manufacturing Technology Center in Illinois, the Army National Guard to manufacture M997A3 HMMWV ambulances, and with Red River Army Depot in Texas to overhaul older HMMWV models.

Closing

In conclusion, our OIB has been effective at building and fixing the Army's equipment for today's needs and generating improved Army readiness. With your support, improvements to the OIB have resulted in cost savings and better sustainment.

Now, we must ensure our OIB is just as adept at handling tomorrow's requirements as modernization efforts produce next-generation combat vehicles, long-range precision fires, future vertical lift, and other innovations. We must modernize our facilities, incorporate emerging technologies, ensure we can hire and retain talented workforce with the right skill sets, partner in new ways with industry, and above all, have the flexibility to revitalize our industrial base as efficiently as possible.

I would like to thank each distinguished member of the Committee for holding this hearing. Your continued support will enable us to equip and sustain the best fighting force in the world.

Lieutenant General Aundre F. Piggee
Deputy Chief of Staff, G-4
U.S. Army

Lieutenant General Aundre F. Piggee assumed duties as the Deputy Chief of Staff, G-4 on 23 September 2016. He oversees policies and procedures used by all Army Logisticians throughout the world. Prior to joining the Army staff he served as the Director of Logistics and Engineering, United States Central Command, MacDill AFB, FL.

Lieutenant General Piggee is a Native of Stamps, Arkansas. He commissioned into the United States Army in 1981 from the University of Arkansas at Pine Bluff where he graduated as a Distinguished Military Graduate with a Bachelor of Science Degree in Biology. He has a Master of Science Degree in Material Acquisition Management from the Florida Institute of Technology and a Master's Degree in Military Strategy from the Army War College. Lieutenant General Piggee also received an Honorary Doctorate Degree in Doctor of Laws from the University of Arkansas at Pine Bluff.

His military education includes the Quartermaster Officer Basic Course, the Ordnance Officer Advance Course, Combined Arms Staff Services School, the Logistics Executive Development Course, the Command and General Staff College and the Army War College.

His most significant assignments include: Director of Logistics and Engineering, United States Central Command, MacDill Air Force Base, Florida; Commanding General, 21st Theater Sustainment Command, Kaiserslautern, Germany; Assistant Chief of Staff, J4 and Combined Forces Command, C4, United States Forces Korea, Seoul, South Korea; and Executive Officer to the Vice Chief of Staff, Army, the Pentagon.

Lieutenant General Piggee's other notable assignments include: Commander, 15th Sustainment Brigade, Fort Hood, Texas; Chief, Support Operation Division, Assistant Chief of Staff, G-4, 8th U.S. Army, Seoul, South Korea; Commander, Division Rear and Chief of Staff, 1st Cavalry Division, Fort Hood, Texas; Commander, 15th Forward Support Battalion and 1st Cavalry Division, G4, Fort Hood, Texas.

Lieutenant General Piggee's awards and decorations include the Distinguished Service Medal, Defense Superior Service Medal (2 OLC), Legion of Merit (2 OLC), the Bronze Star, the Defense Meritorious Service Medal, the Army Meritorious Service Medal (3 OLC), Army Commendation Medal (4 OLC), the Army Achievement Medal (3 OLC). He is authorized to wear the Department of Defense and Army Staff Identification Badges.

STATEMENT

OF

BRIGADER GENERAL JOSEPH F. SHRADER

COMMANDING GENERAL, MARINECORPS LOGISTICS COMMAND

BEFORE THE

HOUSE ARMED SERVICES SUBCOMMITTEE ON READINESS

ON

DEPOT READINESS

28 JUNE 2018

Introduction

Chairman Wilson, Ranking Member Bordallo and distinguished members of the House Armed Services Subcommittee on Readiness, I appreciate the opportunity to testify on an important aspect of Marine Corps warfighting readiness, our industrial depot. Organic industrial depot capabilities help ensure your Marine Corps and our Marines are ready today to succeed at difficult tasks and return home safely to their families. The workforce believes this profoundly and is mindful that what they do is important and that every day a Marine's life depends on their success. This is why we sincerely thank you for your continued support for the industrial base that enables our success.

As we look to the future, we see our depot as a pacesetter, modernizing to meet the challenges while embracing the technologies of the 21st Century. Through our "Marine Corps Logistics Command of the 21st Century" and " Depot of the 21st Century" initiatives, the Marine Corps is posturing itself to execute its Title X responsibilities with logistics solutions that embrace evolving technologies and business processes in order to provide readiness that achieves Marine Corps Logistics Command' s top priority of supporting the warfighter . To communicate the value of our depot in providing the readiness that warriors require, I will touch briefly on four areas: depot maintenance, our workforce, innovation, and facilities.

The Marine Corps' ground weapons systems depot is centrally managed by Marine Depot Maintenance Command, and is comprised of two production plants: one in Albany, Georgia and the other in Barstow, California. Each plant delivers distinct capabilities to the Marine Corps' industrial base while reinforcing the broader industrial base capabilities of the Department and the Nation. Both plants sustain a competitive capability to repair our most valuable ground combat weapon systems, such as Amphibious Assault Vehicles (AAV) and Light Armored Vehicles (LAV). In addition, each plant specializes as a "Center of Excellence" for specific systems for the Marine Corps and our other Department of Defense customers.

Geography is an important consideration for our plants. Strategically located near our major east and west coast operational commands in California and North Carolina, our depot capabilities are collocated with our supply management and distribution centers in order to provide integration and efficient movement of equipment including war reserves. Our Barstow production plant is situated with one of the largest railheads in the Department of Defense and astride major interstate highways. Our Albany production plant, in addition to being collocated with the Marine Depot Maintenance Command and Marine Corps Logistics

Command Headquarters, also enjoys access to robust transportation infrastructure as well as major east coast seaports such as Charleston, South Carolina and Jacksonville, Florida- home to the Marine Corps' maritime prepositioning program. I share this background so that you can understand our organization and that our location is integral to the success of our mission of sustaining readiness for the Marine Corps.

Depot Maintenance

The funding Congress provides to the Marine Corps' depot is essential to readiness. Those funds are used to make sure the equipment Marines need is provided when it's needed, where it's needed, and that it moves, shoots and communicates as intended. In FYI 8, Marine Corps depot maintenance was funded to 80 percent of the identified maintenance requirement. To optimize in1pact of those funds and mitigate the gap, we use a conditions based methodology to prioritize depot repair requirements based on warfighting values. This method allow us to keep pace with the ever-present readiness challenges that have accumulated over the last 17 years of conflict.

One challenge that you can help with is our uncertain fiscal environment. For each of the past two fiscal years, we received funding in the 3rd quarter. Funding delays disrupt our maintenance production cycle and pressurize the supply chain that supports production. It would be of great assistance to our effectiveness and efficiency if we could receive funding at the beginning of the fiscal year. The production plan, which depends on timely resources, is complex and diverse. In FYI7, we remanufactured and repaired over 400 different kinds of equipment and returned over 8,000 items to operating forces - in addition to thousands of additional items that went into our strategic programs such as war reserve and prepositioning. The core of our productivity is consistently dedicated to our primary readiness drivers: Amphibious Assault Vehicles, Light Armored Vehicles, tanks, and howitzers. These systems comprise 50 percent of our FYI9 depot maintenance budget. Readiness of these and other critical systems will remain a service priority and underpin our overall ground equipment readiness strategy.

Workforce

Our depot would not be what it is today without a high quality, dedicated and experienced workforce. The 2018 National Defense Strategy rightly identifies recruiting, developing and retaining a high-quality workforce as essential for warfighting success. The Marine Corps is building a balanced, competent, and adaptive workforce through the

recruitment, retention and development of skilled artisans and employees who possess the right skills to accomplish our mission. We do this in many ways. For example, through strong relationships with colleges and technical schools such as Albany State University and Albany Technical College, we have access to vital local talent pools that we can draw upon to sustain a workforce that increasingly requires high levels of technical skill. Specifically, we are very grateful to Congress for providing Direct-Hire Authorities, which are critical assets in the competitive environment of talent acquisition. These authorities are essential tools that allow us to level the playing field with industry in order to more quickly fill critical positions that require top talent and high demand skills. As Marine Corps Logistics Command has become more familiar with the processes of implementing the hiring authorities, we are finding they allow flexibility and the ability to more quickly close gaps in critical areas. These hiring authorities will become even more important and effective going forward as we strive to develop the 21st century industrial workforce needed by our Nation and our Marines. We are very appreciative of these hiring solutions and hope to see them extended indefinitely.

Innovation

Innovation is inherent and fundamental to Marine tradition, doctrine and leadership. Innovation is essential to the industrial capability we will need and paves the path to future readiness. At the Service level our Marine Corps Warfighting Lab, Next Generation Logistics (NexLog), and Installation-Works (I-Works) organizations are at the cutting edge of military innovation. These staff organizations are collaborating with an array of internal and external partners across four major categories. One of those categories is additive manufacturing. Across the Marine Corps, we have over 70 3-D printers. Each of our production plants recently took delivery of a large-scale 3-D metal printer. The printers were installed during April 2018 and are fully operational. Our vision is to leverage this and other technologies to produce targeted, positive readiness impacts. We are also seeking innovation and constant improvement through partnerships with academia. Marine Corps Logistics Command's relationships with outstanding academic institutions such as Georgia Institute of Technology and Penn State University exemplify how we are working to leverage best in class supply chain, additive manufacturing and analytical expertise to enhance readiness and efficiency while posturing for the future.

Facilities

My last topic is facilities. Modern, high quality, and distributed industrial facilities are an essential element in maintaining a viable Marine Corps depot maintenance capability. We became acutely aware of this in January 2017, when a catastrophic EF-3 tornado struck the base at Albany. Your timely response has been invaluable in the restoration of operations at our depot and at other affected areas of Marine Corps Logistics Base Albany. Your FY18 support to fund a military construction project for a tornado damaged combat vehicle storage facility in Albany is greatly appreciated. We are also very grateful for the FY18 funds to build a combat vehicle repair facility in Barstow. That badly needed facility will improve the productivity of the plant and significantly increase the quality of the work place for our artisans. We are also looking comprehensively at the future. To that end, we have initiated a comprehensive industrial infrastructure strategy to clearly articulate the long term vision, priorities and pathway necessary to equip and sustain the industrial facilities that support our Marines and enhance the combat readiness of our Corps.

Conclusion

The Marine Corps' depot maintenance capability underwrites warfighting readiness in direct support of the dedicated men and women of our Corps. Its reliable and agile value is realized every day by forward deployed Marines and Sailors who are providing security around the globe. Its value is most apparent when the rigor of sustained combat operations drive surge operations throughout the industrial base of the Department and the Nation. The support of Congress, to our depot maintenance program and facilities, to our workforce and to the innovation that postures us for success now and in the future, is essential. On behalf of all of our Marines, Sailors-many deployed and in harm's way today- and their families, and the civilians that support their service, thank you for the opportunity to discuss our organic industrial base and its role in supporting the readiness of the Marine Corps.

Brigadier General Joseph Shrader
Commander, Marine Corps Systems Command

Brigadier General Joseph Shrader, a native of Princeton, West Virginia, enlisted in the Marine Corps in January 1981. He served for three years with 3rd Battalion, 5th Marines as an infantryman and was promoted to corporal. After his enlistment, he returned to West Virginia where he earned an associate degree in Mechanical Engineering Technology and a Bachelor of Science degree in Electrical Engineering Technology from Bluefield State College. He was commissioned a second lieutenant through the Platoon Leaders Course commissioning program in 1989.

Upon graduation from The Basic School, Brigadier General Shrader attended the Artillery Officer Basic Course in Fort Sill, Oklahoma, and then reported to 5th Battalion, 10th Marines (5/10). While assigned to 5/10, Brigadier General Shrader served as a Guns Platoon Commander, Battery Executive Officer and Battery Commander, and deployed to Southwest Asia during operations Desert Shield, Desert Storm and Provide Comfort.

Brigadier General Shrader reported in June 1993 to Marine Corps Recruit Depot, Parris Island, South Carolina, where he served as a recruit training company Series Commander, Company Executive Officer and Company Commander. He then attended the Field Artillery Advanced Officer Course in Fort Sill, and in August 1996, reported to the III Marine Expeditionary Force (III MEF), Okinawa, Japan. While there, he was promoted to Major and served as Assistant Operations Officer, 4th Marine Regiment, and Battalion Operations Officer and Battalion Executive Officer with 3rd Battalion, 12th Marines.

He then attended the Marine Corps Command and Staff College on Marine Corps Base Quantico, Virginia, where he earned a Master of Military Studies degree. In June 2001, he was transferred to Marine Corps Systems Command where he served as the Armor and Fire Support Targeting Team Lead. Upon promotion to Lieutenant Colonel, he was reassigned to serve as the Deputy Program Manager for the Expeditionary Fire Support System.

In July 2004, Brigadier General Shrader returned to III MEF where he served as 12th Marines Operations Officer and later that same year deployed to Sumatra, Indonesia, in support of Operation Unified Assistance. In May 2005, Brigadier General Shrader received orders to stand up 5th ANGLICO, III MEF. In early 2007, he deployed in support of Operation Iraqi Freedom. In October 2007, he relinquished command of 5th ANGLICO and was reassigned as the III MEF Force Fires Coordinator.

In August 2009, he was promoted to Colonel after graduating from the Industrial College of the Armed Forces at National Defense University in Washington, D.C. He was then designated primary military occupational specialty (8061) Acquisition Professional Officer and assigned to Marine Corps Systems Command. Over the next four years he served as Product Group Director for Combat Equipment and Support Systems, and Product Group Director and Program Manager for Armor and Fire Support Systems.

In May 2013, he transferred to the Office of the Deputy Assistant Secretary of the Navy for Expeditionary Programs and Logistics Management to serve as Chief of Staff. In July 2014, Brigadier General Shrader took the helm as Commander of Marine Corps Systems Command. In August 2014, he was frocked to Brigadier General.

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

JUNE 28, 2018

RESPONSE TO QUESTIONS SUBMITTED BY MR. WILSON

General SHRADER. The Marine Corps does have a backlog in facility, utility maintenance and depot repair. In regard to the facility and utility backlog, as part of our Logistics Infrastructure Planning Initiative the Marine Corps is holistically identifying the infrastructure related investments, inclusive of our Capital Investment Plan, needed to optimize depot operations. Through this plan we will seek to address the infrastructure capability and capacity challenges presented by aging facilities. Our plan will incorporate previous facilities planning and provide prioritization, phasing, and funding levels required to ensure that facilities investments support future readiness and sustainment. Our depot maintenance is funded to 80% of the identified requirement, to meet the Office of the Secretary of Defense directed threshold of 80%, which creates an unfunded backlog of depot maintenance. To mitigate risk and shortfalls in execution, we use a depot maintenance model which optimizes depot workload, ensuring depot investment maximizes warfighting capability. While resourcing of depot and field-level maintenance in support of deployed and home station equipment readiness has kept pace with requirements, fiscal realities require readiness balancing decisions, inclusive of our maintenance accounts. For the deferred depot maintenance, four critical weapon systems (AAV, LAV, Tank [M1A1/M88] and M777 Howitzer] account for approximately 50% of the Marine Corps depot maintenance budget, with 70% of our depot maintenance budget invested in just 15 total weapons systems, all significant Marine Corps' readiness items and highest depot cost drivers. [See page 7.]

RESPONSE TO QUESTION SUBMITTED BY MR. SCOTT

General PIGGEE. Protecting Army's intellectual capital is vital to maintaining technological advantages over our adversaries, therefore the Army continues to partner with the Department of Defense (DOD) and industry to implement standards and initiatives to safeguard defense information and facilitate broader public-private cyber information sharing. The Army enforces the Defense Federal Acquisition Regulation Supplement (DFARS), 48 Code of Federal Regulation (CFR) subpart 204.73, which requires all defense contractors to provide adequate cybersecurity as described in National Institute of Standards (NIST) Special Publication (SP) 800–171, Protecting Controlled Unclassified Information in Nonfederal Systems and Organizations, for our sensitive technical information. The Army leverages a combination of DFARS guidance and Law Enforcement and Counterintelligence partnerships to help further ensure that cybersecurity contract requirements are commensurate with the value of our intellectual capital and risks. The Army also leverages the DOD Defense Industrial Base (DIB) Cybersecurity (CS) Activities established under 32 CFR part 236 which serves as a voluntary forum for the DOD and member companies of all sizes to share cybersecurity best practices, DOD and Federal policy challenges, and threats. [See page 11.]

RESPONSES TO QUESTIONS SUBMITTED BY MR. CARBAJAL

General PIGGEE. The Office of Personnel Management (OPM) submitted four recommendations that would affect both current and future retirees in the Federal Employees Retirement System (FERS) and Civil Service Retirement System (CSRS). The recommendations are highlighted below:

1. Elimination of Federal Employees' Retirement System (FERS) Annuity Supplements

This proposal seeks to eliminate the FERS annuity supplement for new retirees and the supplementary annuity for survivor annuitants. This annuity supplement is used to cover the gap between retirement and Social Security eligibility for those federal employees that have to retire before they become Social Security eligible to receive at age 62, such as law enforcement officers. The OPM legislative proposal would eliminate supplements for new retirees and for survivor annuitants. Reduc-

tions of this nature would negatively impact the compensation of former employees and impacted survivors at a crucial stage of their lives.

2. Increase of CSRS and FERS High Three Average Salary Compensation to Pay Period to Five Years

This proposal would amend sections of Title 5 to increase the period of service used to compute an annuitant's average salary under the CSRS and FERS by averaging an employee's basic pay in effect over five consecutive years of service rather than three years of service as is required under current law. Passage of this recommendation would affect the agency's ability to retain current employees who are retirement eligible. Additionally, a major exodus of employees with unique skill sets and historical knowledge, without the opportunity of mentoring or information sharing to new employees, could adversely impact our ability to ensure mission accomplishment.

3. Increase Contributions to Federal Employees Retirement System (FERS)

This proposal seeks to increase the employee deduction rates for the FERS. This proposal would require FERS employees to fund a greater portion of their retirement benefit and will negatively impact current compensation.

4. Reduction or Elimination of Retirement Cost of Living Adjustments (COLAs)

This proposal seeks to reduce the cost of living adjustments under the CSRS by one half of one percent and to eliminate cost of living adjustments under FERS for current and future retirees. This means most FERS participants would no longer receive annual cost-of-living adjustments. For CSRS participants, their COLAs would be 0.5 percent less than what the typical formula currently allows. The amendment would eliminate the provision requiring a reduction to an annuitant's FERS disability annuity by the amount of the annuitant's actual Social Security "assumed disability insurance benefit" and would require the reduction to be based on an annuitant's actual Social Security disability benefit. A reduction of this nature would adversely impact recruiting and retention efforts.

The Federal Government may not always be an employer of choice when it comes to salary, but we are an extremely competitive employer when considering our total compensation package. These proposed reductions will significantly impact our ability to recruit and retain talent in an already competitive market. Reducing benefits under FERS will significantly impact our ability to recruit and retain a professional federal civilian workforce and will adversely impact Army readiness. [See page 15.]

General SHRADER. The current federal government civilians' retirement annuity is one of the most effective recruitment tools available to attract talented and highly qualified civilians. Historically, applicants have sought positions within the federal government based on the security of the benefits package offered, largely including the retirement annuity. In addition to the threats of sequestration, furloughs, and limited pay raises, a reduction in current federal benefits would further weaken our ability to recruit and retain quality civilians In a highly competitive job market. [See page 15.]

RESPONSE TO QUESTION SUBMITTED BY MR. ROGERS

General SHRADER. As stated in the response to QFR #3 [see page 49], our carryover management challenges are similar to those of the other Services. Our position is to adopt the Proposed Calculation Process laid out in the April 2018 Report to Congress on Revising Depot Maintenance Carryover Calculations HR 115–200, page 97 and move forward for implementation of the process. Managing carryover may be improved through standardized methodologies and technologies that facilitate managing, analyzing, and reporting within and across the Services. Such capabilities would support comparative analysis and present opportunities to develop more effective and efficient approaches to managing depot maintenance capabilities and capacities. Although standardized and automated tools could improve carry over calculations, at this time It would not be beneficial to have Service specific metrics. Carry over calculations should be standard across the Department of Defense in order to give the Secretary a common tool to measure all the Services. A disparate reporting format with variable factors will make it difficult for the OSD to articulate to Congress the aggregated information. [See page 16.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

JUNE 28, 2018

QUESTIONS SUBMITTED BY MR. WILSON

Mr. WILSON. What level of funding are your respective services programming to for FY20, and is that number at or above the BCA cap level? If the level is below the amount projected for FY20 in this years budget, then what is not being funded at that lower level?

General PIGGEE. The administration has not yet decided what level of funding they will submit to Congress for FY20. At this time we are anticipating funding similar to the PB19 request. It should be noted however, that the final decision on funding is not with the administration but with Congress. The two-year bipartisan budget relief from BCA funding levels expires at the end of FY19. Therefore in FY20, BCA funding levels are the law of the land and will be the funding level unless Congress grants relief again.

Mr. WILSON. What level of funding are your respective services programming to for FY20, and is that number at or above the BCA cap level? If the level is below the amount projected for FY20 in this years budget, then what is not being funded at that lower level?

General SHRADER. Our FY20 program is currently funded at the Office of the Secretary of Defense designated 80% of the mandated target.

QUESTIONS SUBMITTED BY MR. ROGERS

Mr. ROGERS. I am troubled that carryover as currently interpreted is a one-size-fits-all calculation. Services are unnecessarily restricting equipment overhaul planning and ordering to game the carryover calculation. Meanwhile, the vital work being done at these depots must be accomplished faster than ever in today's threatfilled environment to support our readiness-and the bean-counting should not stand in the way of the mission. To General Shrader, you may be aware that last year's House report accompanying the NDAA called for the Office of the Secretary of Defense to assess and, if necessary, modify the carryover calculation. The response in April of this year provided some insight into each service but fell short of providing a solution amenable to all. Could you discuss the challenges unique to the Marine Corps carryover management programs and any recommendations for improvement? Also, would carryover calculations and metrics that were specific to each service be beneficial? [QFR #3, for cross-reference.]

General SHRADER. Our carryover management challenges are similar to those of the other Services. Managing carryover may be improved through a more standardized methodology and technologies that would enable management, analysis and reporting within and across the Services. Such capabilities would support comparative analysis and may present opportunities to develop more effective and efficient approaches to managing depot maintenance capabilities and capacities. Although standardized and automated tools could improve carry-over calculations, at this time it would not be beneficial to have Service specific metrics. Carry over calculations should be standard across the Department of Defense in order to give the Secretary a common "tool to measure all the Services. A disparate reporting format with variable factors will make it difficult for the Office of the Secretary of Defense to articulate to Congress the aggregated information.